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# **CHEMICAL PHYSICS LETTERS**

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- Bennati, M., A. Grupp, M. Mehring, K.P. Dinse and J. Fink, Pulsed EPR on the photoexcited triplet state of  $C_{60}$  fullerene 200 (1992) 440
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- Ben-Nun, M. and R.D. Levine, An approximate solution of the Fokker-Planck equation for reactions in condensed phases 192 (1992) 472
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- Bentley, J., Theoretical study of lithium cation interactions with hydrocarbon radicals 200 (1992) 518
- Bentley, J.A., J.M. Bowman, B. Gazdy, T.J. Lee and C.E. Dateo, A global ab initio potential for HCN/HNC, exact vibrational energies, and comparison to experiment 198 (1992) 563
- Berbera-Santos, M.N., Comment on "Energy and charge transfer in solutions. The role of donor excitation natural decay" 196 (1992) 220
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- Berezhkovskii, A.M., Yu.A. Makhnovskii, R.A. Suris, L.V. Bogachev and S.A. Molchanov, Diffusion-limited reactions with correlated traps 193 (1992) 211
- Berggren, E., C. Zannoni, C. Chiccoli, P. Pasini and F. Semeria, Monte Carlo study of the molecular organization in model nematic droplets. Field effects 197 (1992) 224
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- Berlin, Yu.A., N.I. Chekunaev and V.I. Goldanskii, Dispersive transport model for CO re-binding to heme proteins: non-Arrhenius non-exponential relaxation 197 (1992) 81
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- Fox, T. and N. Rösch, The calculation of solvatochromic shifts: the  $n-\pi^*$  transition of acetone 191 (1992) 33
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- Sanyal, G., S.H. Mandal and D. Mukherjee, Thermal averaging in quantum many-body systems: a non-perturbative thermal cluster cumulant approach, Chem. Phys. Letters 192 (1992) 55. Erratum 195 (1992) 640
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- Sato, Y., K. Ueda, H. Chiba, E. Shigemasa and A. Yagishita, Auger-electron-photoion and photoion-photoion coincidence studies on ionic fragmentation of  $\text{SF}_6$  following the S L-shell excitation 196 (1992) 475
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- Shirsat, R.N., S.V. Bapat and S.R. Gadre, Molecular electrostatics. A comprehensive topographical approach 200 (1992) 373
- Shishkov, I.F., L.V. Vilkov, C.W. Bock and I. Hargittai, Molecular structure of ethyl nitrate from gas-phase electron diffraction and ab initio MO calculations 197 (1992) 489
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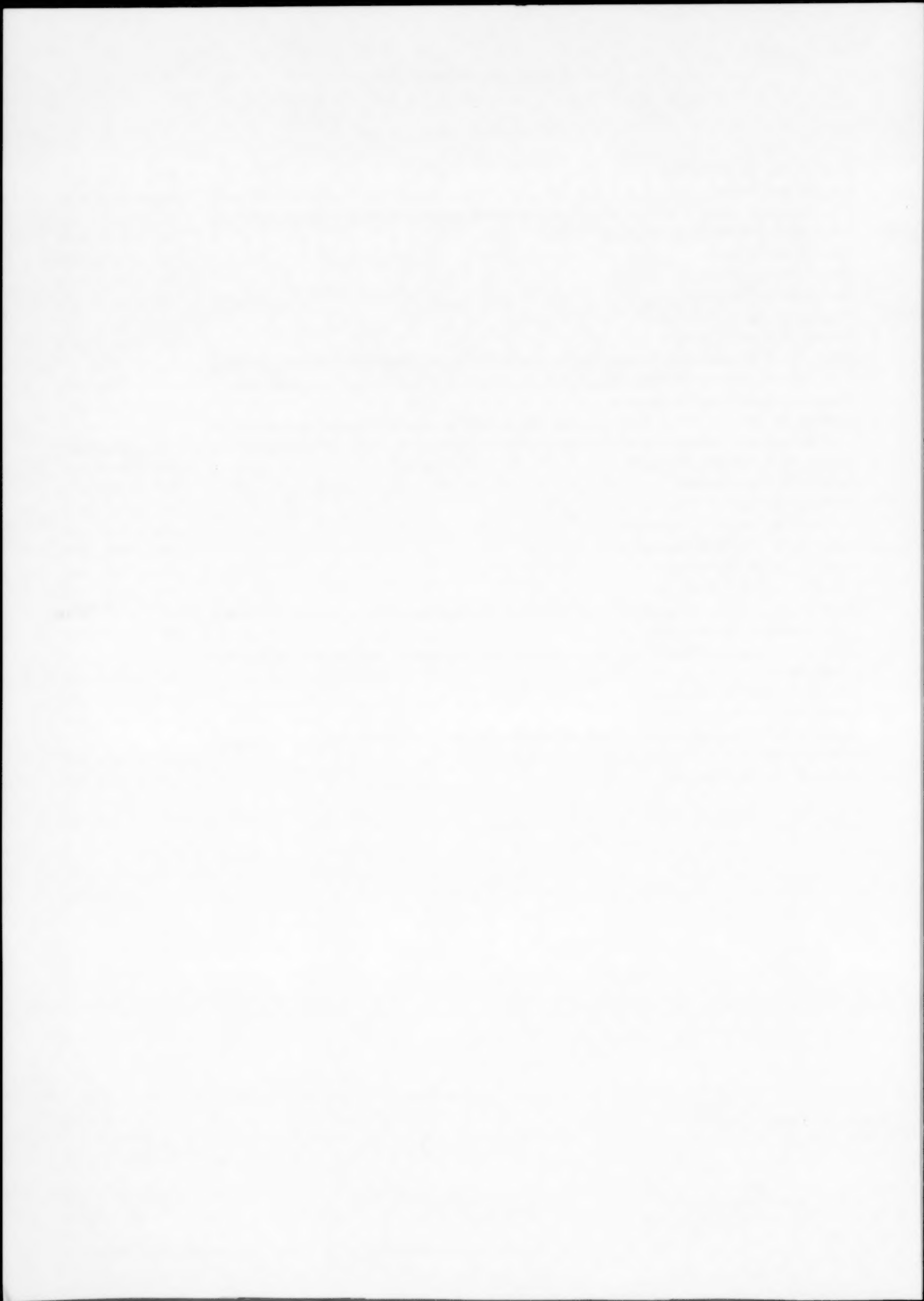
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